

Kyaw Zin Latt
kzlatt@anl.gov +1 (740) 595 6645
Center for Nanoscale Materials/Nanoscience and Technology Division
Argonne National Laboratory, Chicago IL 60439

EMPLOYMENTS

Postdoctoral Research Associate (Feb 22, 2020 --- now)

NST-Nanoscience and Technology, Argonne National Laboratory(ANL)

Responsible for the characterization of two dimensional rare earth based self-assembled supramolecular structure using scanning tunneling microscope(STM) at a cryogenic temperature with the aim to improve the use and to find alternative materials for the industrially critical rare earth elements. The position is part of the grant from Department of Energy towards ANL. (Link: [Announcement](#), [Award](#))

Postdoctoral Scholar ((May 13, 2019 --- Feb 21, 2020)

Pritzker School of Molecular Engineering, University of Chicago

The responsibility includes the development of STM based nanoscale scanning near-field deposition which utilizes the STM as a nanoscale 3D printer/scanner for various materials and substrates to develop single crystal layers using chemical vapor deposition (CVD) process.

PUBLICATIONS

- 1). **K. Z. Latt**, John A. Schlueter, P. Darancet, and S.-W. Hla. "Two-Dimensional Molecular Charge Density Waves in Single-Layer-Thick Islands of a Dirac Fermion System" **ACS Nano** 2020, 14, 7, 8887-8893
- 2). Y. Li, A. T. Ngo, A. DiLullo, **K. Z. Latt**, H. Kersell, B. Fisher, P. Zapol, S. E. Ulloa, and S. W. Hla. "Anomalous Kondo resonance mediated by semiconducting graphene nanoribbons in a molecular hetrostructure" **Nature. Commun.** : 946 (2017)

SELECTED PRESENTATIONS

- *A superconducting raft in the Fermi sea* (NSS8 July 2014)
- *Atomic Scale Proximity Effect at a Molecular Superconductor-Metal Boundary*. American Vacuum Society Meeting; Tempa, **FL** (2017)

OTHERS

- Participated as part of US team (from Ohio University) in the first international Nanocar Race held in Toulouse, France (April 28-29, 2017) and achieved third out of six teams. The competition involved driving a custom designed nanocar made of several hundred atoms on a gold surface for a distance of 100nm using the electric field generated from STM. ([Media](#), [Wiki](#))

EDUCATION

Ph.D. in Physics -- Ohio University, Athens OH (Aug 2019)

Dissertation: "Manipulation of Molecular Charge Density Waves and Molecular Transport Systems"

M.S. in Physics -- Ohio University (Aug 2013)

Dissertation: " Interactions of two-dimensional surface state electron gas with zero, one and two-dimensional structures"

Electrical engineering -- Yangon Technological University (Myanmar) -- Nov 2003

RESEARCH EXPERTIES

- UHV-LT-STM, tunneling microscopy/spectroscopy
- Atomic/Molecular Manipulation on self-assembled layer structures
- Photolithography
- Femtosecond laser, optical parametric oscillator (OPO), spectroscopy, streak camera, time-correlated single photon counting
- COMSOL for physic simulation
- Python, Matlab for data analysis